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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,028	08/17/2001	Toru Hayase	0445-0302P-SP	2692
2292	7590	05/04/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			ANDERSON, CATHARINE L	
			ART UNIT	PAPER NUMBER
			3761	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/931,028

Applicant(s)

HAYASE ET AL.

Examiner

C. Lynne Anderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (5,449,353) in view of Coates (6,254,583) and further in view of Sasaki (6,238,380).

With respect to claims 1 and 2, Watanabe discloses all aspects of the claimed invention with the exception of a pair of cuffs and the exterior member comprising inner and outer sheets. Watanabe discloses a shorts-type disposable diaper 1, as shown in figure 2, comprising a liquid permeable topsheet 2, a liquid impermeable anti-leakage sheet 3, and an absorbent core 4. The diaper 1 has a body-surrounding portion 5a and 5b, and a plurality of body-surrounding elastic members 16 extending in a circumferential width direction of the diaper 1 between the leg and waist portions, as shown in figure 6. The elastic members 16 are disposed in the side portions of the diaper 1 and are not disposed in at least a center portion of where the absorbent core 4 exists. The elastic members 16 are secured in their stretched state and form gathers,

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as disclosed in column 7, lines 14-22. The elastic members are disposed between and joined to the topsheet and the anti-leakage sheet, which are the inner and outer sheets of the exterior member of the diaper. The elastic members 16 are cut at their center portion so that they are not disposed in at least the center of the portion of the diaper 1 where the absorbent core 4 exists, as shown in figure 6. The elastic members 16 extend laterally across the lateral extent of each end portion of the diaper such that at least a portion of the elastic members 16 extend laterally from a position substantially co-extensive with the absorbent core 4, as shown in figure 5. The absorbent core 4 terminates before the end portion of the diaper, as shown in figure 1.

Coates teaches the use of a pair of cuffs 14 provided on lateral sides of the absorbent core 19 of an absorbent article and fixed to the topsheet 12, as shown in figure 1A. The cuffs 14 comprise a breathable liquid-resistant material, as disclosed in column 3, line 57, and have one end fixed to the topsheet 19 over the length of the article and the other end free, as shown in figure 1A. Opposing ends 12A and 12B of the exterior member are folded over onto the ends of the absorbent core 19. The cuffs 14 are coextensive with the absorbent core 19, as shown in figure 1A. The cuffs 14 provide the article with improved leak protection, as disclosed in column 1, lines 63-64.

It would therefore be obvious to one of ordinary skill in the art at the time of invention to construct the article of Watanabe with a pair of cuffs, as taught by Coates, to provide the article with improved leak protection.

Sasaki teaches the use of an exterior member 3 having an inner 28 and an outer sheet 29, with body-surrounding elastic members 36 disposed therebetween, as shown

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in figure 1. Positioning the elastic members within the exterior member allows the elastic members to be placed adjacent to the core without having to sacrifice the thickness and rigidity of the core, as disclosed in column 4, lines 51-60.

It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the article of Watanabe, as modified by Coates, with an exterior member having inner and outer layers, with elastic members disposed therebetween, as taught by Sasaki, to allow the elastic members to be placed adjacent to the core without having to sacrifice the thickness and rigidity of the core.

With respect to claim 3, Sasaki shows in figure 5 the exterior member 3 fixed to the absorbent body by partial bonding.

With respect to claims 4 and 8, Watanabe shows in figure 1 an elastic member 8 fixedly disposed in the waist opening portion, and having a greater elongation stress than the body surrounding elastic members 16, as disclosed in column 7, line 58 to column 8, line 1, and therefore has a greater 30% elongation stress. Given the ranges of elongation stresses disclosed, the ratio of elongations stresses will be between 1.5 and 6.0.

With respect to claim 6, Watanabe discloses all aspects of the claimed invention with the exception of the body-surrounding elastic members having inward ends that are slightly overlapping the absorbent core. It would have been an obvious matter of design choice to have the elastic members slightly overlap the absorbent core, since the applicant has not disclosed that this configuration serves any particular purpose or

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solves any stated problem, and it appears the invention would function equally well with the elastic members overlapping or not overlapping the absorbent core.

With respect to claim 7, the ratio of the width of the absorbent core 4 to the width of the diaper 1 is between 30% and 60%, as shown in figure 1. The ratio of the width of the portions containing the elastic members 11b to the width of the diaper 1 is between 40% and 95%, as shown in figure 1.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (5,449,353) in view of Coates (6,254,583) and Sasaki (6,238,380), and further in view of Iskra (5,021,050).

Watanabe, as modified by Coates and Sasaki, discloses all aspects of the claimed invention but remains silent as to the Taber stiffness of the absorbent core.

Iskra discloses a disposable diaper 10, as shown in figure 1, comprising an absorbent core 16, as shown in figure 3. The absorbent core 16 has a Taber stiffness of less than about 7 g/cm, as disclosed in column 3, lines 31-40. The low Taber stiffness of the absorbent core 16 allows the absorbent core 16 to be flexible enough to bend to form the shape of the diaper 10, as shown in figure 1.

It would therefore be obvious to one of ordinary skill in the art at the time of invention to construct the absorbent core of Watanabe with a Taber stiffness of less than 7 g/cm, as taught by Iskra, to give the absorbent core suitable flexibility.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Lynne Anderson whose telephone number is (571) 272-4932. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CWA  
cla  
April 28, 2006

TATYANA ZALUKAEVA  
SUPERVISORY PRIMARY EXAMINER

